

Claim Amendments (Listing):

This listing of claims below will replace all prior versions and listings of claims in the present application.

1. (Currently amended) In a code-division-multiple-access (CDMA) system employing spread-spectrum modulation comprising a base station (BS) comprising a BS-spread-spectrum transmitter and a BS-spread-spectrum receiver, and at least one mobile stations (MS) comprising an MS-spread-spectrum transmitter and an MS-spread-spectrum receiver, a method comprising the steps of:

transmitting from the MS-spread-spectrum transmitter of the one mobile station a spread-spectrum signal signifying a request to utilize an uplink channel;

receiving the request to utilize the uplink channel from the one mobile station at the BS-spread-spectrum receiver;

processing the received request to determine whether or not to grant the requested access;

if the processing results in a determination to grant access, transmitting from the BS-spread-spectrum transmitter a spread spectrum signal comprising a channel-request-granted message for the one mobile station, the channel-request-granted message comprising control information specifying a transmission start time and a transmission length;

receiving the channel-request-granted message from the base station at the MS-spread-spectrum receiver the one mobile station;

at the specified transmission start time, initiating transmission from the BS-spread-spectrum transmitter of a spread spectrum signal comprising control signaling related to the granted access over a downlink channel;

receiving the spread spectrum signal comprising control signaling at the MS-spread-spectrum receiver the one mobile station;

at a predetermined time after the specified transmission start time, starting transmission of a spread spectrum signal containing packet data over the uplink channel from the MS-spread-spectrum transmitter of the one mobile station, in a manner in accord with the received control information; [[and]]

ceasing the transmission of the spread spectrum signal containing packet data over the uplink channel from the mobile station, upon completion of transmission of packet data of the specified transmission ~~length~~ length; and

transmitting from the MS-spread-spectrum transmitter of the one mobile station a spread-spectrum signal containing format information,

wherein the transmission signal containing the format information begins between the specified transmission start time and the predetermined time after the specified start time.

2. (Original) The method of claim 1, wherein when the transmission of the spread spectrum signal containing packet data over the uplink channel ceases, the uplink physical dedicated channel is immediately released.

3. (Original) The method of claim 1, wherein the channel-request-granted message further comprises at least one of Hybrid-ARQ (Automatic Repeat reQuest) information, data identifying an uplink modulation scheme, and an uplink channelization code related to an uplink physical dedicated channel assigned for use by the MS spread-spectrum transmitter of the one mobile station.

4. (Original) The method of claim 1, wherein:

the transmitting of the spread spectrum signal comprising the channel-request-granted message utilizes a downlink forward access channel; and

transmission from the BS-spread-spectrum transmitter of a spread spectrum signal comprising control signaling related to the granted access uses a downlink packet sharing channel.

5. (Original) The method of claim 4, wherein control information comprises at least one of Hybrid-ARQ (Automatic Repeat reQuest) information, data identifying an uplink modulation scheme, and an uplink channelization code related to the transmission by the one mobile station on the uplink physical dedicated channel.

6. (Cancelled)

7. (Currently amended) The method of claim [[6]] 1, wherein the transmitting of the spread-spectrum signal containing format information utilizes an uplink packet control channel.

8. (Original) The method of claim 1, wherein the uplink channel is a physical dedicated channel.

9. (Original) The method of claim 1, wherein the uplink channel is a common packet channel.

10. (Currently amended) The method of claim 1, wherein the request to utilize the uplink channel comprises control information specifying a ~~buffer~~ state of a buffer of the one mobile station or a quality of service level desired for the requested access.

11-18. (Cancelled)

19. (Currently amended) ~~[[The]]~~ In a wireless code-division-multiple-access (CDMA) spread-spectrum communication network comprising a base station for serving one or more mobile stations, a method of claim 18, further comprising comprising:

transmitting a data channel initialization request, for access to an uplink channel, to the base station from one mobile station;

receiving a channel-request-granted message at the one mobile station, the channel-request-granted message comprising control information specifying a start time and a transmission length;

after the specified start time, receiving control signaling related to the requested access at the one mobile station;

transmitting packet data from the one mobile station over the uplink channel of the specified transmission length, beginning at a time following initial reception of the control signaling; and

transmitting format information associated with the packet data from the one mobile station, following receiving of the control signaling and before beginning the transmitting of the packet data over the uplink channel.

20. (Original) The method of claim 19, wherein the uplink channel comprises a physical dedicated channel.

21. (Original) The method of claim 20, wherein the transmitting of the format information utilizes an uplink packet control channel.

22. (Original) The method of claim 20, wherein:
the channel-request-granted message is received over a downlink forward access channel;
and
the control signaling related to the requested access is received over a downlink packet sharing control channel.

23-26. (Cancelled)

27. (Currently amended) A mobile station for use in a code-division-multiple-access (CDMA) system employing spread-spectrum modulation, the mobile station (MS) comprising:
an MS-spread-spectrum transceiver system, for transmitting and receiving spread-spectrum modulated signals to and from a mobile station; and

a media access control interface, coupled to the MS-spread-spectrum transceiver system, for receiving and sending packet data for the mobile station through the MS-spread-spectrum transceiver system, and for controlling signaling communications of the MS-spread-spectrum transceiver system in support of wireless communications operations of the mobile station through with a base station of the CDMA system, such that in operation, the mobile station is for performing the following sequence of operations:

transmitting a data channel initialization request, for access to an uplink channel, to the base station from one mobile station;

receiving a channel-request-granted message at the one mobile station, the channel-request-granted message comprising control information specifying a start time and a transmission length;

after the specified start time, receiving control signaling related to the requested access at the one mobile station; [[and]]

transmitting packet data from the one mobile station over the uplink channel of the specified transmission length, beginning at a time following initial reception of the control signaling signaling; and

transmitting format information associated with the packet data from the one mobile station, following receiving of the control signaling and before beginning the transmitting of the packet data over the uplink channel.

28. (Cancelled)

29. (Original) The mobile station of claim 27, wherein the MS-spread-spectrum transceiver system comprises a base band processor.

30. (Original) ~~[[The]]~~ A mobile station as in claim 27 for use in a code-division-multiple-access (CDMA) system employing spread-spectrum modulation, the mobile station (MS) comprising:

an MS-spread-spectrum transceiver system comprising a base band processor, for transmitting and receiving spread-spectrum modulated signals to and from a mobile station, wherein the base band processor comprises:

a spread-spectrum transmitter;

a spread spectrum receiver; and

a controller, responsive to signals from the spread-spectrum receiver and the media access control interface, for controlling operations of the spread-spectrum ~~transmitter~~ transmitter; and

a media access control interface, coupled to the MS-spread-spectrum transceiver system, for receiving and sending packet data for the mobile station through the MS-spread-spectrum transceiver system, and for controlling signaling communications of the MS-spread-spectrum transceiver system in support of wireless communications operations of the mobile station through with a base station of the CDMA system, such that in operation, the mobile station is for performing the following sequence of operations:

transmitting a data channel initialization request, for access to an uplink channel, to the base station from one mobile station;

receiving a channel-request-granted message at the one mobile station, the channel-request-granted message comprising control information specifying a start time and a transmission length;

after the specified start time, receiving control signaling related to the requested access at the one mobile station; and

transmitting packet data from the one mobile station over the uplink channel of the specified transmission length, beginning at a time following initial reception of the control signaling.

wherein the spread-spectrum transmitter transmits format information associated with the packet data from the one mobile station to the base station via the uplink packet control channel.

31. (Original) The mobile station as in claim 30, wherein the spread-spectrum transmitter transmits the channel request message on an uplink packet control channel.

32-34. (Cancelled)